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December 5, 1986

Honorable Mayor and Members
of the City Council
801 North First Street, Room 600
San Jose, CA 95110

Transmitted herewith is a report on A Performance Audit of the Department of Parks and Recreation's Maintenance Activities. This report is in accordance with City Charter Section 805(a).

An Executive Summary is presented on the blue papers in the front of this report while the Administration response is shown on the yellow pages after the Attachments.

I will present this report to the Finance Committee at its December 15, 1986 meeting. If you need additional information in the interim, please let me know. City Auditor staff who participated in the preparation of this report are Joe Morical and Jeff Myers.

Respectfully submitted,

Gerald A. Silva
City Auditor

GS:mlt

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OFFICE OF THE

CITY AUDITOR

A PERFORMANCE AUDIT OF THE DEPARTMENT OF PARKS AND RECREATION'S MAINTENANCE ACTIVITIES

A REPORT TO THE

SAN JOSE

CITY COUNCIL

DECEMBER 1986

86-23

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EXECUTIVE SUMMARY

Our review evaluated the Department of Park and Recreation's Maintenance activities. We found the Department can improve their maintenance activities in a number of ways.

Deficiencies in the Department's Task/ Frequency Analysis Process Impair Management's Ability to Accurately Assess Maintenance Staffing Needs

The Department has reduced maintenance activities to specific tasks in an effort to define and plan for park maintenance. The Department uses these tasks in Maintenance Task/Frequency Analysis Charts (TAC's) to estimate the number of required maintenance positions. Our review found the TAC's are improperly compiled and are not used effectively. Specifically, we noted the following deficiencies with the TAC process:

- Task Frequency Analysis Charts often do not reflect actual park conditions or maintenance activities.
- Task Frequency Analysis Charts are replete with both systematic and random errors.

As a result, 1) the Department is spending time and resources on a potentially useful process that is inaccurate and of limited value; and 2) Management cannot objectively assess maintenance staffing requirements. By implementing

needed changes to the Maintenance TAC process, the administration and the City Council will have better information with which to make maintenance budgetary and policy decisions.

Procedures and Criteria for Facility Evaluation Need to be Clarified

The Department's facility evaluation system lacks objectivity and does not allow for the systematic identification and correction of park deficiencies. The facility evaluation system can be improved to provide management with an objective assessment of current park conditions and a comprehensive data base of deficiencies on a park, District or City-wide basis. Such information will enhance management's ability to make informed and responsive operating maintenance and capital improvement budget decisions.

Better Utilization of Existing Information Will Improve the Department's Ability to Manage Central Services Activities and to Control Equipment Usage

The Department of Parks and Recreation uses a work order system to initiate special Central Services repairs and activities. In addition, the department requires that Park District Supervisors provide monthly information regarding equipment maintenance and use. Our review revealed that 1) there is no systematic compilation or analysis of readily available work order information; 2) there is inadequate control over the work order process; and 3) there is general non-compliance with required equipment reporting procedures.

As a result, the department lacks information that would improve its ability to manage Central Service activities and to control equipment usage.

Finally, we have provided information for City Council consideration which we feel is pertinent regarding the use of Construction and Conveyance Taxes to pay for parks operating maintenance costs.

Between 1989-90 and 1992-93 the General Fund Will Pay for Nearly $1.5 Million in Operating Maintenance Expenses that were Previously Paid for with Construction and Conveyance Taxes

Beginning in 1983-84, Construction and Conveyance (C&C) Taxes could be used to pay for a portion of certain Parks operating maintenance costs. While this policy has benefited the General fund in the short term, our review revealed that the General Fund 1) will begin to absorb these costs in 1989-90 and 2) by 1992-93 will have absorbed nearly $1.5 million in costs previously paid for with C&C Taxes.

RECOMMENDATIONS:

We recommend that:

Recommendation #1:

The Department develop accurate and current Task/Frequency Analysis Charts for all park facilities. (Priority 3)

Recommendation #2:

The Department revise charts to reflect actual park conditions based upon manager, supervisor and worker input. (Priority 3)

Recommendation #3:

The Department modify the TAC process to insure that charts are changed when facilities are renovated or expanded. (Priority 3)

Recommendation #4:

The Department document any modifications made to TAC's that effect the calculated staffing need of a facility. (Priority 3)

Recommendation #5:

The Department automate the TAC process in order to eliminate clerical errors and reduce the staff time devoted to the process. (Priority 3)

Recommendation #6:

The Department consider expanding the TAC model for assessing the cost of increasing or decreasing task durations and frequencies. (Priority 3)

Recommendation #7:

Department Maintenance Managers, Superintendents or Supervisors perform formal evaluations for facilities other than those for which they are directly responsible for maintaining. (Priority 3)

Recommendation #8:

The Department modify its evaluation form to provide categories for optimum, acceptable and unacceptable conditions. In addition, a second page should be added for comments and suggested corrective action. (Priority 3)

Recommendation #9:

Management develop a complete data base of facility evaluation results which includes observed deficiencies and recommended corrective action. (Priority 3)

Recommendation #10:

Management integrate a cost and priority system into the data base of observed deficiencies. (Priority 3)

Recommendation #11:

Management use the comprehensive cost and data base to develop its operating maintenance and capital improvement program budgets. (Priority 3)

Recommendation #12:

The Central Services Administrative Unit 1) purge the work order control log of open entries which have actually been completed or are duplicates and 2) institute procedures designed to update and correct the work order information in the log. (Priority 3)

Recommendation #13:

The Central Services Administrative Unit periodically and regularly prepare and submit to management abstracts of work order control log information. Such information should include the number of work orders received, completed, and average completion times by category of requested service. In addition, information on open work orders such as aging and explanations for work orders open longer than a specified time should also be included. (Priority 3)

Recommendation #14:

Management periodically and regularly review work order control log abstracts to 1) establish formal work order priorities; 2) review for compliance with those priorities; and 3) assess staff performance. (Priority 3)

Recommendation #15:

Park District Supervisors comply with department procedures and record keeping requirements regarding equipment usage and maintenance. (Priority 3)

Recommendation #16:

Management review equipment usage information to verify that required maintenance is occurring and to assess the propriety of equipment assignments. (Priority 3)

INTRODUCTION

The Department of Parks and Recreation administers and/or provides space and facilities for a broad range of activities. These include the traditional activities of providing and maintaining passive park land, organizing and scheduling recreational programs, and maintaining a youth and adult sports program. In addition, the Department provides both facilities and direct services for young people, the elderly and handicapped. The Department also operates numerous revenue producing programs such as the Municipal Golf Course, Children's Zoo and many direct sports and recreational activities which require a participation fee.

Table 1 summarizes the Department's program and expenditure levels for 1986-87

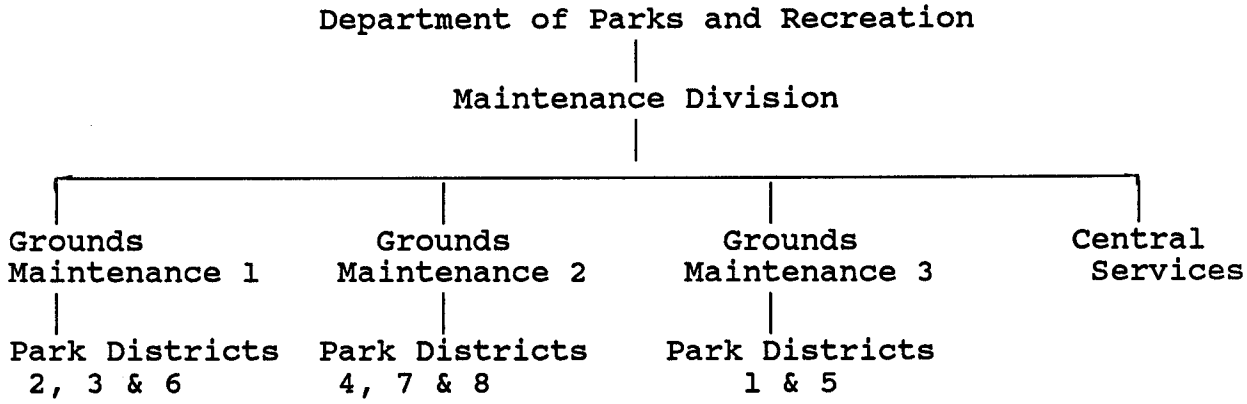
Table 1

Summary of the Department of Parks and Recreation's Programs and Expenditure Levels for 1986-87

Programs	Expenditure Levels
Management & Administration	$ 1,333,729
City-Wide Park Services	2,604,948
Neighborhood and District Parks	4,044,899
Special Maintenance Services	2,354,081
Community Centers	3,660,608
Youth Services	1,031,225
Therapeutic Recreation Services	697,548
Office on Aging	2,547,635
City-Wide Recreation Services	1,935,908
Sports and Aquatics	899,473
Camping Program	286,627
Ranger Services	1,061,477
Total	$22,458,158

Our audit focused on the Department's maintenance activities. Of the programs listed in Table 1, three programs; City-wide Park Services, Neighborhood and District Parks and Special Maintenance Services are maintenance programs. City-wide Park Services provides landscape maintenance for City-wide park facilities such as Happy Hollow Park and Zoo, Lake Cunningham, Overfelt Gardens, and the Historical Museum. Neighborhood and District Parks personnel are responsible for landscape maintenance at neighborhood and district parks. Special Maintenance Services provide specific maintenance services for all City park facilities. These three programs total $9,003,928, or 40 percent, of the Department's 1986-87 budget.

The Department's Maintenance Division is responsible for the maintenance activities embodied in the above three programs. The Maintenance Division is organized into 1) three Grounds Maintenance Sections which provide general landscape services for the eight park districts; and 2) the Central Services Section which performs specialized landscape and repair services for all facilities. This organization is presented schematically as follows:



The Department has 199 positions allocated to maintenance activities. Of these, 163 actually perform day to day maintenance functions at 286 facilities. Table 2 summarizes the types and number of facilities the Department maintains.

Table 2

Summary of the Types and Number of Facilities the Department Maintains

Type of Facility	Number
Neighborhood Parks	79
District Parks	16
City-Wide Parks	18
Community Centers	26
Civic Grounds	60
Libraries	60
Ballfields	27
TOTAL	286

The Department's 1986-87 budget to provide maintenance at these facilities is as follows:

Salaries	$5,163,422
Fringe Benefits	1,655,716
Non-Personal Expenses	2,109,390
Equipment	75,400
TOTAL	$9,003,928

The City's General Fund provides all but $452,000 of the $9,003,928 budget amount. The source for the $452,000 is those Construction and Conveyance (C&C) tax proceeds that can be used for maintenance activities. The use of C&C funds for operating maintenance is discussed in detail beginning on page 47.

SCOPE AND METHODOLOGY

As part of our audit of the Department of Parks and Recreation's maintenance activities, we reviewed department budgets to ascertain spending and staffing levels over the last several years. We also evaluated the sources and uses of maintenance funding and the impact on the General Fund of on-going park development.

In addition, we assessed the time standards the Department uses to determine the number of personnel needed to accomplish maintenance activities on an annual basis. This assessment included 1) a check of the mathematical computations of department staff needs; 2) an independent review of the time to perform certain work tasks; and 3) discussions with those employees actually performing the maintenance tasks. Further, we assessed the Department's methods for evaluating the conditions of park facilities. This assessment included a review of Supervisor's written evaluations and the criteria used in making those evaluations.

Finally, we evaluated the Department's Central Services activities and its system for maintaining and repairing equipment.

FINDING I

DEFICIENCIES IN THE DEPARTMENT'S TASK/ FREQUENCY ANALYSIS PROCESS IMPAIR MANAGEMENT'S ABILITY TO ACCURATELY ASSESS MAINTENANCE STAFFING NEEDS

The Department has reduced maintenance activities to specific tasks in an effort to define and plan for park maintenance. The Department uses these tasks in Maintenance Task/Frequency Analysis Charts (TAC's) to estimate the number of required maintenance positions. Our review found the TAC's are improperly compiled and are not used effectively. Specifically, we noted the following deficiencies with the TAC process:

- Task Frequency Analysis Charts often do not reflect actual park conditions or maintenance activities.
- Task Frequency Analysis Charts are replete with both systematic and random errors.

As a result, 1) the Department is spending time and resources on a potentially useful process that is inaccurate and of limited value; and 2) Management cannot objectively assess maintenance staffing requirements. By implementing needed changes to the Maintenance TAC process, the Administration and the City Council will have better information with which to make maintenance budgetary and policy decisions.

The Maintenance Task/Frequency Analysis Charts

For more than ten years, the Department has used TAC's to calculate the number of staff needed to maintain the City's park facilities. This process involves the following for each facility: 1) an identification of each maintenance task; 2) an estimate of the time it takes to perform one repetition of each task; 3) a determination of how many repetitions of the task are required; and 4) how frequently the task must be performed. The summation of this process for all facilities produces the annual estimate of maintenance staffing needs.

The following example shows several typical maintenance tasks and how annual staffing needs are computed:

Task Description	Unit of Measure	Time For Unit(Hours)	Number of Units	Frequency	Total Task Hours
Mow turf	Acre	.26	4.3	Weekly = (.26 x 4.3 x 52)	58.24
Refuse Pick-up	1 can	.11	18	Weekly = (.11 x 18 x 52)	102.96
Spray Shrubs	40	1.56	12	Monthly = (1.56 x 12 x 12)	224.64
Edge turf	100 linear	.04	26	Weekly = (.04 x 26 x 52)	54.08

It should be noted, that the above is a simplified example of how the process works. In actuality there are computations made for as many as 43 grounds maintenance tasks and 22 Central Services Maintenance tasks.

Attachment I is a listing of the Maintenance tasks in the TAC's.

The Department uses two objective levels of maintenance in existing charts. A high level, using higher frequencies for certain tasks, is applied to high use, aesthetically important, and revenue producing facilities. A lower level, using lesser frequencies, is applied to all other facilities.

Before May 1986, the Department calculated personnel requirements using only one standard level of maintenance for all facilities. This resulted in a calculated need for 221 maintenance workers. The Department adopted the current dual level maintenance standards and revised the Task/Frequency Analysis Charts accordingly because such an overall high level of maintenance was unachievable and some facilities warranted more intense maintenance than others.

In May 1986, the Department and the Office of Management and Budget submitted to the City Council Phase II of the Parks Planning Study. Included in the Phase II document was a section on Maintenance Staffing Findings for Local Parks, Regional Parks, and Civic grounds, which stated in part:

...There are 166 positions currently allocated for grounds and landscape maintenance. An additional allocation of 34 positions would attain the proposed service levels. This is distributed by the facility categories as follows:

Facilities	Additional Personnel
Neighborhood/Mini Parks	4
District Parks	3
City-Wide Parks	16
Community Centers	1
Civic Grounds	7
Libraries	1
Ballfields	2
TOTAL	34

This current manpower deficit is partially mitigated by using public service programs such as the California Youth Conservation Corps, Truancy Abatement Program, the SPEDY Program, Elmwood prisoners and weekend court referrals. An estimated equivalent of 10.0 full-time positions were utilized from the public service programs in 1985. These sources of outside manpower, however, can only be utilized for labor-intensive work such as trail maintenance, litter pick-up and drainage clean up. They are not utilized for performing tasks requiring skilled workers.

With the continued use of these public service programs and an additional 24 grounds and landscape maintenance personnel, the department's maintenance staffing deficiency would be fully mitigated..."
(Emphasis added)

Department personnel told us the estimated 34 positions staffing deficit was largely based on the results of the TAC process. Thus, the Administration and the City Council use TAC results to make important maintenance budgetary and policy decisions. Accordingly, it is essential that the process produce reliable results. However, our review revealed that such is not the case.

Task/Frequency Analysis Charts Often Do Not Reflect Actual Park Conditions or Maintenance Activities.

An absolute prerequisite to a reliable TAC process is an accurate inventory for each facility and the completion of a chart for every facility the Department maintains. Our review, however, revealed that 1) TAC information is incomplete or inaccurate for many facilities and 2) the Department did not complete charts for many facilities. As a result, the Department could not substantiate its stated need for 34 additional maintenance positions.

TAC Information Is Not Reliable

As part of our review of the TAC process, we visited five of the parks the grounds maintenance staff maintain. The purpose of our visits was to assess the validity of TAC information. Specifically, we tested for 1) task frequencies 2) task inventories (or number of units), and 3) the time required to complete each task unit. Our comparison of TAC information to actual field conditions revealed numerous discrepancies, which are summarized on the next page.

Table 3
COMPARISON OF TASK/FREQUENCY ANALYSIS CHART INFORMATION TO ACTUAL FIELD CONDITIONS

Task	Park #	Observed Difference Between Chart Information and Field Condition: Task Frequency	Task Inventory	Time Required	Impact of Observed Difference on Annual Staff Hours: <Understated> Overstated
Litter Pickup/ Safety Check	1			X	<285>
	2			X	< 89>
	4			X	< 91>
Clean Restrooms	1	X		X	182
	2	X		X	146
	5	X		X	291
Sweep Building Perimeter	5			X	59
Check Trees, Ties, and Stakes	1	X	X		< 79>
	5	X			8
Set-Out Refuse Cans	1	X			24
	2		X		< 26>
	3				22
	4				24
	5		X	X	*
Irrigate Turf, Quick Coupler	1				<231>
	5				<167>
Clear Picnic Area	1			X	17
	2		X		< 60>
	5		X		< 95>
Check Sprinkler Controls, Adjust Heads	1	X	X	X	< 75>
	5			X	<179>
Water Trees/Shrubs	2		X		<211>
	5			X	< 10>
Rodent Control	1		X		25
	5	X		X	12
Sweep Path/ Surface Area	2	X			<135>
	5	X			52

* Offsetting Differences

Task	Park #	Observed Difference Between Chart Information and Field Condition: Task Frequency	Task Inventory	Time Required	Impact of Observed Difference on Annual Staff Hours: <Understated> Overstated
Sweep Tennis Court	2		X		< 13>
Edge Turf Area	1		X		<134>
	2			X	35
	5	X		X	51
Edge Tree Basins	1		X		49
	5		X		61
Spray Weeds/Tree Basins	1		X	X	< 20>
Rake Leaves/ Street Area	2	X	X		<167>
Spray Turf	1		X		9
Spray Flowers/ Ground Cover	2		X		**
Spray Shrubs	2		X		**
Prune Shrubs	2	X			<144>
Prune/Trim	1	X	X	X	<1293>
Small Trees	2	X			< 24>
	3			X	**

** Not Calculable

Based upon our review, the task frequencies, inventories and time requirements in the TAC's are unreliable. As is shown above, this results in both overstatements and understatements of staffing needs. That fact, plus our limited sample size, precludes our drawing any conclusions regarding the impact TAC discrepancies might have on calculated staff requirements systemwide.

A major cause of the TAC discrepancies we observed is an absence of communication between those Department officials who prepare the TAC's and the workers who are responsible for performing the tasks.

During our review we asked maintenance workers if they were familiar with the TAC for their facility. Of the several maintenance workers we questioned, only one had seen a TAC and that had occurred only a week before our interview. This lack of communication between Department Administrators and maintenance workers creates the following problems.

The first problem is that errors in TAC task frequencies, inventories or time requirements go uncorrected because workers are not familiar with the TAC's.

The following examples illustrate this point.

- *"Prune/Trim Small Trees" was understated by 1,293 staff hours for Park #1 in our sample. (See page 12) The reason for such a large discrepancy was that 1) the Park actually had 400 trees instead of the 80 shown in the chart, 2) the actual time to trim a unit of 10 trees was 3 hours and not the 1.4 hours in the chart.*

- *Many of the task inventory discrepancies in our sample appeared to be the result of recent park expansions or renovations that were not reflected on the TAC's.*

- *TAC's do not include time for:*

  - *Regularly scheduled maintenance worker meetings with supervisors*

  - *On-site repair and maintenance of hand tools and small power tools*

  - *Cleaning tool sheds*

  - *Lost time due to broken equipment*

  - *Lost time due to rainy weather*

A second problem caused by the Administration's failure to inform maintenance workers of TAC's is that workers are not always aware of the Department's task priorities. In a series of interviews with park workers, we found that in addition to being physically distant from the Department's administrators, maintenance workers also feel that they are distant from the Department's decision making process as well. The fact that workers are in regular contact with supervisors via staff meetings and site visits but are still unaware of the existence of the TAC's evidences the isolation workers feel. This feeling of isolation is compounded by a belief among

workers that they need more help or a smaller area of responsibility in order to meet their own maintenance standards. These problems, and a perceived worker alienation, appear to be rooted in a lack of communication between the policy making Department administrators and the maintenance workers regarding maintenance levels. We noted many cases where workers spend significantly more or less time on a task than might be appropriate in the eyes of Department administrators. In other words,the workers spent their time according to their own, not the Administration's priorities. For example, one park worker we interviewed reported that he spent about 5 times longer pruning trees because the actual inventory was 400 trees rather than the 80 shown, and very little time cleaning the children's play area. While this situation may be partly due to the park's uniqueness, it also results from the workers ignorance of the Department's priorities as shown in current TAC's. Specifically, TAC's place far greater emphasis on children's play areas than on pruning trees.

A final problem the absence of communication between Department administrators and workers creates relates to worker evaluations. Because TAC's define maintenance tasks and estimate the required times to complete each task, they constitute de facto job descriptions for maintenance workers. However, we discovered that the Administration not only does not show the charts to the workers but does not use the charts as a basis for employee performance evaluations either. The

failure to communicate TAC information to workers makes it 1) unlikely that the expectations represented within the charts will be met, and 2) difficult for supervisors to judge which workers are doing the best job of meeting those expectations.

In our opinion, the Administration could address the above problems by communicating TAC information to maintenance workers. By so doing, 1) TAC discrepancies could be eliminated, 2) the Department's task priorities could be communicated to and accepted by the workers, and 3) the objectivity and validity of worker's evaluations would be enhanced.

Charts Are Not Prepared For Many Facilities

During our review we requested the Department to provide us with completed TAC's for each of the Department's 286 facilities. The Department subsequently provided us with only 149 completed charts. As a result, it appears that the Department did not prepare or could not locate TAC's for 137 facilities. Mitigating this to some extent is the fact that in some cases more than one facility is combined in one chart. This situation raises serious questions regarding the validity of the Department's calculated maintenance staffing needs, which is supposedly the accumulation of the TAC's for each park facility. This is especially true since the Department could not provide TAC's for some of its higher staffed facilities. Specifically, TAC's were not available for

Alum Rock Park and Lake Cunningham which had annual assigned maintanence staff hours equivalent to more than 10 staff years. Accordingly, the Department's calculated maintenance staffing needs cannot, by definition, be the end product of the TAC process.

Task Frequency Analysis Charts are Replete with Both Systematic and Random Errors

In addition to comparing TAC information to actual field conditions, audit staff also developed a computer program to test the mathematical calculations for each of the 149 available TAC's. The results of this process are as follows:

- Mathematical discrepancies were noted in every one of the 149 TAC's tested.
- The average mathematical error for each facility tested was $\pm$ 9.92%

In order to verify the accuracy of TAC's, audit staff designed a Lotus 1-2-3 computer spreadsheet to automatically calculate the maintenance staff hours required for all the tasks at specific parks. These computerized results were frequently different from those the Department calculated.

The Department's manually calculated charts differed from the computer calculations because of a multitude of simple clerical errors such as arithmetic, rounding, omissions and transcription. There does not appear to be a definite over or

under calculation pattern. For some facilities staffing requirements were overstated, while for other facilities staffing requirements were understated. Some of the larger discrepancies noted are shown on the following page.

Table 4

EXAMPLES OF THE LARGER DISCREPANCIES NOTED
BETWEEN MANUALLY AND COMPUTER
CALCULATED STAFFING NEEDS

Facility	Computer Calculated Annual Staff Hours Needed	Department Calculated Annual Staff Hours Needed	Difference	Percentage Difference
Alamaden Community Center	577	431	145	34%
Watson Community Center	1,021	646	375	58
Stonegate	716	1,081	<365>	<34>
Happy Hollow Plus A	7,935	6,281	1,115	16
Japanese Garden	6,880	10,235	<3,355>	<33>
161-200 Asbury	320	851	<531>	<62>

Based on our testing of 149 TAC's, the Department's manually calculated staffing needs were 2,001 staff hours more than the computer calculated needs. This equates to a little more than one staff year. It should be noted that this overestimation is limited to simple miscalculations and does not include the types of errors noted on pages 11 and 12.

There are two principal causes for the errors audit staff observed. The first cause relates to the laborious task that is required to manually calculate the TAC's. For example, if each of the 286 maintenance facilities averaged 35 tasks, and each task required six calculations, then approximately 60,000 mannual calculations must be made to estimate systemwide staffing needs. To put that into perspectiive, the Department estimated that the equivalent of one staff year is devoted to preparing TAC's. Given the volume and mundane nature of the required calculations, the potential for error is rather obvious.

The second cause of some of the observed mathematical differences is that TAC preparers sometimes make informal and undocumented changes to calculated results. According to Department Analysts, a number of changes are made to TAC results because the Analyst knows of facility idiosyncrasies or modifications that are not reflected in the TAC. While these modifications may be appropriate, they pose a problem because

they are not documented or recorded. As a result, Department Administrators cannot review or approve such modifications. In addition, if someone who is unfamiliar with all of the undocumented modifications recalculates the chart, as happened earlier this year, some modifications may not be included in the recalculations. Finally, undocumented modifications can even result if the person who is familiar with the modifications forgets them when preparing TAC's in subsequent years.

In our opinion, the Department could eliminate TAC errors by automating the process and documenting any and all modifications. By so doing; 1) clerical errors would be eliminated, 2) staff time would be saved, and 3) the Administration would be able to review and approve any modifications. The Office of the City Auditor has provided the Department the Lotus 1-2-3 computer spreadsheet that audit staff developed during this review.

Resources are Spent on a Process That Produces Inaccurate Results

The Department spends the equivalent of approximately one staff year to prepare TAC's. Our review, however, revealed that the TAC process produces results that are of limited value for assigning maintenance staff.

During our review of the TAC process, audit staff compared TAC calculated staffing levels to actual staffing levels for 134 facilities. The results of our comparisons were that:

- Significant differences exist between TAC calculated staffing needs and actual staffing for most of the facilities reviewed.
- The average difference between TAC calculated staffing needs and actual staffing was $\pm$ 33% for each facility.

Some examples of the larger differences between TAC calculated staffing needs and actual staffing are shown on the following page.

Table 5
EXAMPLES OF THE LARGER DIFFERENCES
BETWEEN TAC CALCULATED STAFFING
NEEDS AND ACTUAL ASSIGNED STAFFING

Facility	TAC Caculated Annual Staffing Hours Needed	Actual Assigned Annual Staffing Hours	Difference	Percentage Difference
Lone Hill	1747	796	951	54%
Rose Garden	7585	1852	5733	76
Watson Park	1542	2648	<1106>	<72>
Hillview Park	1394	2463	<1069>	<77>
Prusch Park	2363	1296	1067	45
Happy Hollow Plus A	6820	4241	2579	38
History Museum	3669	2222	1447	39
Japanese Garden	10,235	5556	4679	46
City Hall	2,951	1445	1506	51
Civic Auditorium	1,960	370	1590	81
Overfelt	8,714	5186	3528	40

As the above examples clearly show, the Department does not allocate its maintenance staff based on the results of the TAC process. In fact, as was noted earlier, the Department does not prepare TAC's for many of its 286 facilities.

A Potentially Useful Process

A number of California Cities use a process similar to the Department's TAC process to determine maintenance staffing needs. In our opinion, the Department's TAC process has the potential to not only objectively assess staffing needs, but to provide the Administration and the City Council with reliable information with which to make maintenance budgetary and policy decisions. An accurate and reliable TAC process could provide the Administration and the City Council with the ability to 1) identify and allocate costs to specific tasks or facilities, 2) establish control over maintenance activities 3) prioritize tasks and communicate those priorities to the maintenance workers 4) evaluate tasks for possible efficiencies and 5) assess the cost of alternative maintenance decisions.

CONCLUSION

The Department spends resources on a Task/Frequency Analysis Chart (TAC) process that is inconsistently applied and unreliable. By instituting needed improvements to the TAC process, the Administration and City Council would have a potentially powerful management tool for budgetary and policy decision making purposes.

RECOMMENDATIONS:

We recommend that:

Recommendation #1:

The Department develop accurate and current Task/Frequency Analysis Charts for all park facilities. (Priority 3)

Recommendation #2:

The Department revise charts to reflect actual park conditions based upon manager, supervisor and worker input. (Priority 3)

Recommendation #3:

The Department modify the TAC process to insure that charts are changed when facilities are renovated or expanded. (Priority 3)

Recommendation #4:

The Department document any modifications made to TAC's that effect the calculated staffing need of a facility. (Priority 3)

Recommendation #5:

The Department automate the TAC process in order to eliminate clerical errors and reduce the staff time devoted to the process. (Priority 3)

Recommendation #6:

The Department consider expanding the TAC model for assessing the cost of increasing or decreasing task durations and frequencies. (Priority 3)

FINDING II

PROCEDURES AND CRITERIA FOR FACILITY EVALUATION NEED TO BE CLARIFIED

The Department's facility evaluation system lacks objectivity and does not allow for the systematic identification and correction of park deficiencies. The facility evaluation system can be improved to provide management with an objective assessment of current park conditions and a comprehensive data base of deficiencies on a park, District or City-wide basis. Such information will enhance management's ability to make informed and responsive operating maintenance and capital improvement budget decisions.

Field Evaluation

Currently, Park District Supervisors perform field evaluations three times a year. Each Supervisor evaluates those facilities for which they are responsible. The evaluation form contains 13 categories and each category is rated acceptable or unacceptable. The categories are:

1. Litter
2. Restrooms
3. Turf
4. Irrigation

5. Walks/Paths
6. Play areas
7. Parking lots/courts
8. Trees/shrubs/groundscover
9. Insects and disease
10. Picnic areas
11. Athletic areas
12. Buildings
13. Miscellaneous

We reviewed the most recent evaluations available. The evaluations are organized by Parks District and the results of those evaluations are summarized in Table 6.

Table 6

Summary of Park Facility Evaluations by Park District

Park District	Number of Facilities Evaluated	Number of Facilities With One or More Categories Rated Unacceptable	Percentage of Facilities With One or More Categories Rated Unacceptable
1	29	7	24%
2	26	2	8%
3	16	9	56%
4	21	7	33%
5	15	8	53%
6	27	13	48%
7	21	6	29%
8	6	2	33%
TOTAL	161	54	34%

As shown above more than 50 percent of the facilities in Park Districts three and five were rated as unacceptable in one or more maintenance categories. District two, however, reported only 8 percent of its facilities as having any unacceptable conditions. A range of 8% to 56% represents a broader qualitative difference than one would expect to objectively exist.

Under the Department's current evaluation process, the evaluators have a vested interest in the results of the evaluation. Accordingly, the evaluations lack objectivity by definition. Ideally, the facility evaluation system should 1) be as objective as possible, and 2) provide the basic data for a problem identification and correction program. It is axiomatic that such a system should provide the following:

1. An objective system of facility evaluation;
2. A compilation of the type and frequency of identified problems on a total system basis;
3. An assessment of the cost of correction and a prioritization of problems; on a facility, District and City-wide basis; and
4. Coordination of the operating maintenance and capital improvement programs with the data base developed in steps 1 through 3.

An Objective System of Facility Evaluation

The current practice of supervisors evaluating the facilities within their own districts should not be the Department's primary evaluation mechanism. The official evaluations would be more objective if a supervisor or manager without a specific vested interest performed them. In addition, a process of rotating the evaluators from one district to another seems appropriate. Such a procedure would not only enhance the objectivity of the evaluation process but would allow for new and different evaluative insights.

The objectivity of the evaluation process could also be enhanced if the evaluation form was improved. For example, at least three categories of evaluation (optimum, minimum, and unacceptable) could be substituted for the current two categories of acceptable and unacceptable. Further, what constitutes optimum, minimum and unacceptable conditions should be agreed to by all concerned administrators and supervisors. It would be helpful if photographic examples of appropriate evaluative categories were developed and circulated to all individuals involved in the evaluation process. Also, the evaluation form would be improved if a second page were added

to allow for explanations of those categories judged unacceptable or minimum. This would also allow space for the rater to suggest corrective action and the potential consequences of not correcting the problem. These changes will lend additional objectivity to the evaluation process and generate additional informed opinions regarding the condition of the Department's facilities.

Development of a Comprehensive Data Base

The most recent evaluations, when summarized, identify 16 facilities with irrigation problems and 11 facilities with turf problems. Most of the turf problem are also the result of poor irrigation. Based upon our analysis, it appears that about 15% of all park facilities have some sort of irrigation problem. This exercise demonstrates the value of a process that consolidates evaluation observations into an organized data base for subsequent management review, inquiry and action. For example, in the immediate case, audit staff determined that the principle causes of irrigation problems are poor facility design, inadequate water pressure and undue reliance on manual watering. Depending on which condition caused the observed deficiencies, management could design a strategy to correct the situation. In our opinion, the development of a consolidated data base of observed deficiencies on a facility, District and City-wide basis would greatly enhance management's capability to take corrective action.

Cost and Priority

The next logical step in the evaluation process would be to estimate the cost to correct any observed deficiencies and establish a priority system. By summarizing similar deficiencies and cost data, management can allocate resources on a park, District or City-wide basis. In addition, management could adopt a functional maintenance approach. For example, management could assess the cost to correct all irrigation-related problems. Armed with this data, Management could establish priorities and rationally evaluate cost/benefit decisions.

Coordination of Operating Maintenance and Capital Improvement Programs

An informed and responsive operating maintenance budget and capital improvement program are the end products of 1) an objective evaluation system; and 2) a coordinated, comprehensive cost and data base. Absent any of these requisite elements, management's ability to make informed budgetary decision will be impaired.

CONCLUSION

The Department's facility evaluation program lacks adequate objectivity, a consolidated data base and clearly established priorities for the resolution of facility deficiencies. Improvements can be made to the current evaluation system that will provide management with additional administrative capabilities.

RECOMMENDATIONS

We recommend that:

Recommendation #7:

Department Maintenance Managers, Superintendents or Supervisors perform formal evaluations for facilities other than those for which they are directly responsible for maintaining. (Priority 3)

Recommendation #8:

The Department modify its evaluation form to provide categories for optimum, acceptable and unacceptable conditions. In addition, a second page should be added for comments and suggested corrective action. (Priority 3)

Recommendation #9:

Management develop a complete data base of facility evaluation results which includes observed deficiencies and recommended corrective action. (Priority 3)

Recommendation #10:

Management integrate a cost and priority system into the data base of observed deficiencies. (Priority 3)

Recommendation #11:

Management use the comprehensive cost and data base to develop its operating maintenance and capital improvement program budgets. (Priority 3)

FINDING III

BETTER UTILIZATION OF EXISTING INFORMATION WILL IMPROVE THE DEPARTMENT'S ABILITY TO MANAGE CENTRAL SERVICES ACTIVITIES AND TO CONTROL EQUIPMENT USAGE

The Department of Parks and Recreation uses a work order system to initiate special Central Services repairs and activities. In addition, the Department requires that Park District Supervisors provide monthly information regarding equipment maintenance and use. Our review revealed that 1) there is no systematic compilation or analysis of readily available work order information; 2) there is inadequate control over the work order process; and 3) there is general non-compliance with required equipment reporting procedures. As a result, the Department lacks information that would improve its ability to manage Central Service activities and to control equipment usage.

Central Services

The Parks and Recreation Central Services Division performs several routine maintenance functions for all department facilities.

These routine services are generally provided on a scheduled basis and are comprised of the following:

- Turf Management - mowing, fertilizing and aeration
- Refuse and trash pick-up

In addition, the unit operates as a service bureau providing specialized services on a work order basis. Work orders fall into the following categories of requested services:

- Small equipment repair
- Irrigation repair
- Pruning and ground repair
- Spraying, aerating and fertilizing turf.

A specific Central Services work group is responsible for each of the above categories.

The work order process is a follows:

- A field supervisor initiates a request for service via a memorandum which is sent to the Central Services Administrative Unit.
- Upon receipt of the memorandum the Administrative Unit 1) prepares a three part work order (Form 42241C/267R); and 2) enters the work order information (date of request, facility and description of the work) into a control log.

- The Administrative Unit routes parts one and two of the work order to the appropriate Central Services Supervisor who 1) assigns the task to a maintenance worker; and 2) routes both parts of the work order to the worker.

- The Administrative Unit routes part three of the work order to the supervisor who initiated the work request.

- Following completion of the task the worker 1) enters on the work order the hours spent on the task and the date completed; and 2) routes both parts of the work order back to the Administrative Unit.

- Upon receipt of the two completed work order parts the administrative unit 1) notes in the control log the completion of the task; and 2) returns part one of the completed work order to the initiating supervisor for matching with part three.

- The Administrative Unit retains part two for a period of four months and then forwards it to the maintenance management unit for permanent storage.

Management Information Not Used

The Central Services work order log represents a centralized and easily accessible respository of pertinent information regarding the number, nature and disposition of Central Services work orders. As such, a regular analysis and summary of the work order log would provide management with important insight into Central Services activities.

Management, however, is not using the work order log as an information source. In an effort to demonstrate what kind of management information the work order log is capable of generating, audit staff reviewed the work order log to determine 1) the number and type of work orders initiated in June 1986; and 2) the disposition of those work orders as of the end of August 1986. Table 7 summarizes the results of that effort.

Table 7

Summary of the Number and Disposition of Work Orders Initiated in June 1986

Category of Requested Service	Number of Work Orders Initiated In June 1986	Number of Work Orders As of August 28, 1986 Completed	Number of Work Orders As of August 28, 1986 Open	Average Days to Process Work Orders as of August 28, 1986 Completed	Average Days to Process Work Orders as of August 28, 1986 Open
Small Equipment Repair	36	23	13	10.3	71.8
Irrigation Repair	107	81	26	17.8	74.6
Pruning and General Repair	2	2	-	6.5	-
Spraying, Aerating and Fertilizing Turf	17	17	-	12.1	-
TOTAL	162	123	39	15.4	73.7

Based upon the above summary, some conclusions can be drawn regarding work orders. First, irrigation and repair work

orders are by far the most numerous. Also, there is a correlation between the number of work orders per category and the number of still open work orders. In addition, it is obvious that the service type categories of 1) spraying, sweeping, aeration and fertilization; and 2) pruning, ground repair, planting and apparatus repair are responded to much faster than the repair type categories such as small equipment and irrigation repair.

The above information also raises some questions regarding the staffing levels and performance of the work groups assigned to the four work group categories. For example, after reviewing the information in Table 7, audit staff selected seven open work orders to ascertain why they were still open as of August 28, 1986. The results of that follow-up were that:

- Three of the work orders had been completed but the work order log had not been updated.
- Two of the work orders were delayed because needed parts had not been delivered.
- Two of the work orders could not be explained by the initiating supervisor or the employee to whom the work order was assigned.

In our opinion, the results of audit staff's analysis evidences the value of periodic management reviews and follow-up on open work orders and other information that can be abstracted from the work order control log.

The Work Order Control Log Needs to be Updated

By analyzing the Work Order Control Log, audit staff identified numerous open work orders that had been initiated as long ago as 1982. According to Central Services personnel, this can occur when the worker assigned to perform the task loses the work order. Unfortunately, when this happens, Central Services Unit also loses control of the work order process. In those instances when the work has been completed and the initiating Supervisor is aware of its completion, the only harm that results from a lost work order is that the Work Order Control log is incomplete. However, in those instances when the requesting Supervisor does not know the work has been completed, a redundant work order is sometimes generated. This not only results in the control log having duplicate entries for the same task but can result in workers being assigned to do a task which has already been completed.

Audit staff reviewed 10 open work order control log entries which were two to four years old. We were able to subsequently determine that three of the ten work orders had been completed but were not properly recorded in the work order control log. We were unable to document the disposition of the remaining seven work orders. Presumably, these work orders were either 1) completed with no recordation being made, 2) completed under another work order or, 3) not completed.

In our opinion, the following steps should be taken to establish control over the work order process and improve the usefulness of the work order control log as a source of management information.

- The Administrative Unit should bring the work order control log current by purging those open entries which were actually completed or superceded by a subsequent work order.
- The Administrative Unit should retain one of the work order parts rather than sending two parts to the assigned worker.
- The Administrative Unit should follow up those work orders which remain open more than 30 days to ascertain the reasons for the delay. If the delay is to be extensive, the Administrative Unit should advise the originating supervisor, thus preventing the creation of a duplicate work order.
- Upon receipt of a work order, the Administrative Unit should review the file of pended work orders to assure themselves that it is not a duplicate of an open work order.

By implementing the above steps, the work order control log will provide Department management with a reliable and easily accessible source of useful information. Periodic and regularly produced work order control log abstracts will also

allow management to establish formal work order priorities and to review for compliance with those priorities. For example, work order assignments could be prioritized as follows.

Priority 1: Problems which create a hazardous condition or cause the dysfunction of an essential service or operation.

Priority 2: Problems which reduce the capabilities of a needed function or service.

Priority 3: Problems which require correction, but are more a nuisance than a real threat to operations.

Once priorities have been set, management could establish time goals for each priority level and periodically assess Central Services performance against those goals. Such a system will allow management to better assess performance and any required staffing adjustments.

Hand Equipment Maintenance, Usage and Inventory Control

Effective and timely preventive equipment maintenance is the backbone of any sucessful maintenance operation. However, the Department's procedures and record keeping for equipment maintenance need improvement. Records are not consistently maintained resulting in management unawareness of equipment maintenance status. In addition, management lacks consolidated information on the usage of assigned equipment.

Department procedures call for each Park District Supervisor to forward, on a monthly basis, a tag for each piece of equipment assigned to that district. The tag provides verification that the required maintenance has been performed and the hours the equipment was in use. We reviewed the equipment in each park district to ascertain the degree of compliance with the requirement for monthly updates. We reviewed a 19-month period from January 1985 through July 1986. The following table summarizes our findings:

Table 8

Summary of District Compliance With the Departments Equipment Reporting Requirements

District	Items of Equipment	Number of Reports Due	Report Received	Compliance Percentages
1	30	570	0	0%
2	28	532	193	28%
3	25	475	15	3%
4	20	380	191	50%
5	30	570	394	69%
6	43	817	0	0%
7	28	532	0	0%
8	21	399	16	4%
TOTAL	225	4,275	809	19%

Obviously, the District Supervisors are not complying with the equipment reporting requirement and the Department is not enforcing compliance. As a result, no consolidated record of

equipment maintenance exists. As usage information is a by-product of the maintenance records, no consolidated equipment usage data is available either. Therefore, management cannot be assured that equipment 1) is receiving the maintenance prescribed; or 2) is effectively utilized.

In our opinion, the Department should emphasize the importance of District Supervisors complying with established policies regarding equipment usage information. Further, management should regularly review such information to 1) verify that required maintenance is occurring and 2) assess the propriety of equipment assignments.

CONCLUSION

By improving control over the Central Services work order process, management will have a reliable and easily accessible source of information that will allow it to 1) establish work order priorities and 2) better assess performance and staffing assignments. In addition, equipment maintenance and usage records are infrequently updated leaving management with little assurance that equipment is properly maintained, used or assigned.

RECOMMENDATIONS

We recommend that:

Recommendation #12:

The Central Services Administrative Unit 1) purge the work order control log of open entries which have actually been completed or are duplicates and 2) institute procedures designed to update and correct the work order information in the log. (Priority 3)

Recommendation #13:

The Central Services Administrative Unit periodically and regularly prepare and submit to management abstracts of work order control log information. Such information should include the number of work orders received, completed, and average completion times by category of requested service. In addition, information on open work orders such as aging and explanations for work orders open longer than a specified time should also be included. (Priority 3)

Recommendation #14:

Management periodically and regularly review work order control log abstracts to 1) establish formal work order priorities; 2) review for compliance with those priorities; and 3) assess staff performance. (Priority 3)

Recommendation #15:

Park District Supervisors comply with department procedures and record keeping requirements regarding equipment usage and maintenance. (Priority 3)

Recommendation #16:

Management review equipment usage information to verify that required maintenance is occurring and to assess the propriety of equipment assignments. (Priority 3)

OTHER PERTINENT INFORMATION

BETWEEN 1989-90 AND 1992-93 THE GENERAL FUND WILL PAY FOR NEARLY $1.5 MILLION IN OPERATING MAINTENANCE EXPENSES THAT WERE PREVIOUSLY PAID FOR WITH CONSTRUCTION AND CONVEYANCE TAXES

Beginning in 1983-84, Construction and Conveyance (C&C) Taxes could be used to pay for a portion of certain parks operating maintenance costs. While this policy has benefited the General Fund in the short term, our review revealed that the General Fund 1) will begin to absorb these costs in 1989-90 and 2) by 1992-93 will have absorbed nearly $1.5 million in costs previously paid for with C&C taxes.

The City Code, Chapter 4.54 and Chapter 4.58, describes the uses and restrictions concerning Construction and Conveyance (C&C) tax revenue. Section 4.58.230.G delineates how portions of C&C taxes may be used to temporarily pay for a percentage of operating maintenance. Specifically, Section 4.54.090.G provides that C&C Funds may pay for up to 10 percent of park facility operating maintenance costs, subject to the following restrictions:

- The facilities must become operational on or after July 1, 1983.
- Facilities are eligible for C&C funding for only five years.

Section 4.58.230.G states in part:

"Not more than ten percent of the taxes...may be expended...for operating maintenance costs of capital facilities...which first become operational on or after July 1, 1983, for not more than a period of five years on any specific capital facility..." (Emphasis added)

While this provision provides a brief benefit to the General Fund, it may cause the General Fund fiscal problems in the near future. The Department estimates that Construction and Conveyance Taxes may pay for as much as $2,304,000 in operating maintenance costs over the next five years. As a result, the General Fund will benefit to the extent these costs are shifted to the C&C Fund. However, our analysis revealed that these benefits will be reversed as the five-year qualification period expires.

The methodology to calculate the amount of C&C Taxes used to pay for parks operating maintenance is as follows. Annually, the Department evaluates City-wide projects and each City Council District for projects which meet the basic eligibility criteria. In order to qualify, projects must be either 1) new or an expansion of an existing facility; 2) funded by C&C funds; and 3) completed on or after July 1, 1983. For eligible projects, the Department estimates annual maintenance costs and

determines a total. The Department then compares the calculated total eligible maintenance costs to 10 percent of the expected C&C tax collections for the year in question. The amount of C&C taxes that can be used to pay for operating maintenance is the lesser of actual eligible maintenance costs or 10 percent of estimated C&C Tax collections. The Department follows this process for each City Council District and for City-wide facilities. The total of these estimates is the budgeted amount of C&C taxes that will transferred to the General Fund. The actual Fund transfer is made just before the end of the fiscal year.

Table 9 summarizes the Department's calculations of operating maintenance costs to be paid for with C&C Funds in 1986-87.

Table 9

Summary of Calculated Operating Maintenance Costs to be Paid for with C&C Funds in 1986-87

Council District Location of Eligible Facilities	Estimated Operating Maintenance for Eligible Facilities	10% of C&C Tax Revenue (Estimate)	Operating Maintenance Costs to be Paid for With C&C Funds
1	$ -0-	$ 41,000	$ -0-
2	38,000	44,000	38,000
3	-0-	49,000	-0-
4	140,000	105,000	105,000
5	8,000	30,000	8,000
6	129,000	49,000	49,000
7	58,000	55,000	55,000
8	36,000	74,000	36,000
9	22,000	39,000	22,000
10	73,000	58,000	58,000
City-Wide	67,000	181,000	67,000
Parks/Yards	16,000	14,000	14,000
TOTAL	$587,000	$739,000	$452,000

As shown above, the Department estimates that the use of C&C Funds to pay for operating maintenance costs will reduce General Fund expenditures by $452,000 in 1986-87. Obviously, such a use of C&C tax revenue mitigates the financial impact to the General Fund of maintaining new and expanded facilities. However, this is only true as long as the associated facilities remain within the five-year eligibility period. To illustrate this point, we have developed Table 10, which shows the Department's estimate of the operating maintenance costs the General Fund must absorb beginning in 1988-89 because the associated facilities will no longer qualify for C&C Taxes.

Table 10

Estimate of Operating Maintenance Costs the General Fund Must Absorb Beginning in 1988-89 that Were Previously Funded Out of C&C Taxes

Fiscal Year	Operating Maintenance Costs the General Fund Must Absorb that Were Previously Funded Out of C&C Taxes	
	Annual	Cumulative Total
1988-89	$ 41,800	$ 41,800
1989-90	169,100	210,900
1990-91	361,800	572,700
1991-92	443,900	1,016,600
1992-93	467,600	1,484,200

Table 10 shows that beginning in 1988-89 the General Fund will start to pay for operating maintenance costs that were previously funded with C&C Taxes. The $41,800 shown in 1988-89 applies to those facilities that become operational five years earlier in 1983-84. Table 10 also shows that 1) the amount of operating maintenance costs shifted to the General Fund increases rapidly to $467,600 in 1992-93; and 2) the cumulative total of operating maintenance costs that will be shifted to the General Fund during the five years ending in 1992-93 approximates $1.5 million.

CITY OF SAN JOSE, PARKS AND RECREATION
STANDARD PARK MAINTENANCE TASK/FREQUENCY/ANALYSIS CHART

FACILITY _____ GROSS ACRES . NET ACRES . DATE / /

TASKS DESCRIPTIONS	REF #	UNIT OF MSRE	NO. OF UNITS	STD. UNIT HRS.	2ND RE-CUR	STD HRS + 15%	FREQUENCY & STANDARDS WTR. SEASON FREQ	WTR. SEASON HRS	ON SEASON FREQ	ON SEASON HRS	TOTAL STANDARD HOURS
1. Litter pickup/safety check	055	10,000 sq.ft.	.	0.10	0.05	.	5x/wk 82	.	5x/wk 166	.	.
2. Clean restroom and drinking fountain	027	both rooms	.	0.88	0.88	.	7days 126	.	7days 238	.	.
3. Rake tanbark/sand area	129	100 sq.ft.	.	0.15	0.05	.	5x/wk 82	.	5x/wk 166	.	.
4. Sweep perimeter building (hand)	033	1,400 sq.ft.	.	0.37	0.27	.	3x/wk 54	.	5x/wk 166	.	.
5. Check trees/ties/stakes	028	25 trees	.	0.20	0.20	.	wkly 18	.	5x/wk 166	.	.
6. Clean fountain/light clean	137	1,000 sq.ft.	.	0.18	0.10	.	4x/wk 72	.	4x/wk 136	.	.
7. Irrigate flower beds(hand)	030	100 sq.ft.	.	0.20	0.20	.	bi-wk 9	.	3x/wk 102	.	.
8. Rake bleacher areas (hand)	152	100 sq.ft.	.	0.15	0.10	.	3x/wk 54	.	3x/wk 102	.	.
9. Clean ballfield dugouts (hand)	153	100 sq.ft.	.	0.12	0.10	.	3x/wk 54	.	3x/wk 102	.	.
10. Set out refuse cans	132	1 can	.	0.21	0.10	.	wkly 18	.	2x/wk 68	.	.
11. Irrigate turf/Q-coupler (hand)	032	10 Q-couplr	.	0.49	0.49	.	bi-wk 9	.	2x/wk 68	.	.
12. Irrigate turf/manual vlves	012	8 valves	.	0.20	0.20	.	bi-wk 9	.	2x/wk 68	.	.
13. Clean picnic area, 2:1	039	2 tbls 1 pit	.	0.39	0.29	.	bi-wk 9	.	wkly 34	.	.
14. Clean fountain/heavy clean	136	1,000 sq.ft.	.	1.08	0.98	.	bi-mo 2	.	month 8	.	.
15. Check control/adjust head	114	10 stn	.	0.50	0.50	.	wkly 18	.	wkly 34	.	.
16. Mow turf area, walking power mower	147	10,000 sq.ft.	.	0.57	0.49	.	wkly 18	.	wkly 34	.	.
17. Water trees/shrubs (hand)	149	75 trees	.	2.00	2.00	.	month 4	.	wkly 34	.	.
18. Water shrub/groundcover valve	012	8 valves	.	0.20	0.20	.	month 4	.	wkly 34	.	.
19. Remove spent flowers/ annuals	138	100 sq.ft.	.	0.59	0.51	.	month 4	.	wkly 34	.	.
20. Rodent control	131	1 per 2acres	.	0.16	0.15	.	bi-mo 2	.	wkly 34	.	.
21. Sweep path/court surface area (p)	135	1,000 sq.ft.	.	0.10	0.05	.	bi-wk 9	.	wkly 34	.	.
22. Sweep Tennis Court	155	7,200 sq.ft.	.	0.30	0.20	.	bi-wk 9	.	wkly 34	.	.
23. Edge turf area/power	133	100 lin.ft	.	0.14	0.04	.	bi-wk 9	.	wkly 34	.	.
24. Check manual valves	012	8 valves	.	0.20	0.20	.	12	.	-0-	.	.
25. Edge tree basins, power	048	10 basins	.	0.43	0.40	.	bi-mo 2	.	month 8	.	.
26. Rake leaves/turf area	143	300 sq.ft.	.	0.15	0.10	.	8	.	2	.	.

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CITY OF SAN JOSE, PARKS AND RECREATION
STANDARD PARK MAINTENANCE TASK/FREQUENCY/ANALYSIS CHART

FACILITY _____ GROSS ACRES . NET ACRES . DATE / /

TASKS DESCRIPTIONS	REF #	UNIT OF MSRE	NO. OF UNITS	STD. UNIT HRS.	2ND RE-CUR	STD HRS + 15%	FREQUENCY & STANDARDS WTR. SEASON FREQ	WTR. SEASON HRS	ON SEASON FREQ	ON SEASON HRS	TOTAL STANDARD HOURS
27. Spray weeds/tree basins	026	10 basins	.	0.17	0.10	.	month 1	.	2	.	.
28. Spray weeds skin area, 30 gal.	130	6,000 sq.ft.	.	1.73	1.56	.	month 1	.	2	.	.
28. Spray weeds skin area, 3 gal.	134	1,000 sq.ft.	.	0.58	0.50	.	month 1	.	2	.	.
29. Prune/trim hedge, hand	127	100 lin.ft	.	3.28	3.00	.	month 1	.	2	.	.
29. Prune/trim hedge, power	051	100 lin.ft	.	1.63	1.63	.	month 1	.	2	.	.
30. Rake leaves/shrubs/skin area, 10 plants	142	100 sq.ft.	.	0.14	0.05	.	4	.	2	.	.
31. Edge groundcover	150	100 lin.ft	.	0.17	0.09	.	month 1	.	bi-mo 4	.	.
32. Spray turf sprinkler heads	035	10 heads	.	0.24	0.10	.	bi-mo 2	.	month 8	.	.
33. Spray flower/ground cover, 30 gal.	130	6,000 sq.ft.	.	1.73	1.56	.	month 1	.	1	.	.
33. Spray flower/ground cover, 3 gal.	134	500 sq.ft.	.	0.58	0.50	.	month 1	.	1	.	.
34. Spray shrubs, 30 gal.	156	40 shrubs	.	1.76	1.56	.	month 1	.	1	.	.
34. Spray shrubs, 3 gal.	157	10 shrubs	.	0.58	0.50	.	month 1	.	1	.	.
35. Cultivate flower bed (p)	047	1,000 sq.ft.	.	1.65	1.50	.	month 1	.	2	.	.
36. Cultivate shrub bed (h)	141	100 sq.ft.	.	0.44	0.35	.	1	.	1	.	.
37. Fertilize flower bed	144	1,000 sq.ft.	.	0.21	0.13	.	1	.	2	.	.
38. Fertilize shrubs	159	10 shrubs	.	0.30	0.15	.	1	.	1	.	.
39. Fertilize groundcover	144	1,000 sq.ft.	.	0.21	0.13	.	1	.	1	.	.
40. Prune shrubs	160	10 shrubs	.	1.40	1.30	.	1	.	-0-	.	.
41. Prune small, trim large trees	049	10 trees	.	1.51	1.41	.	1	.	-0-	.	.
42. Prune groundcover	148	100 sq.ft.	.	0.75	0.70	.	1	.	-0-	.	.
43. Mulch open shrub area	145	1,000 sq.ft.	.	3.85	3.75	.	-0-	.	-0-	.	.
			.			.		.		.	.
			.			.		.		.	.
TOTAL GROUNDS MAINTENANCE HOURS REQUIRED											

Analysis Formula
Total Grounds Maintenance Hours are ÷ by 1,852 for Actual Capability Hours

Parks Maintenance Management Unit (5/1/86)
3682R/229R

Total Facility Grounds Maint. Required _____.

CENTRAL SERVICES
MAINTENANCE STANDARDS ANALYSIS CHART

FACILITY _____ NET ACRES ____. TURF ACRES ____. DATE __/__/__

JOB DESCRIPTION	REF. FORMULA	UNIT OF MEASURE	NO. OF UNITS	STD HRS. +15%	TOTAL UNIT HRS.	FREQUENCY & STANDARD OFF SEASON FREQ	OFF SEASON HRS	ON SEASON FREQ	ON SEASON HRS	TOTAL STANDARD HOURS
CENTRAL SERVICES I										
61.*Wet Garbage P.U.	1180.0612	Per can/bin	.	0.11	.	90 2x	.	170 3x	.	.
62.*Refuse Pick-up	1180.0612	Per can	.	0.11	.	18 2x	.	68 3x	.	.
63. Trash Pick-up	1180.0500	1 per 5 acres	.	0.17	.	18	.	34	.	.
64. Pavement Sweeping	1140.1400	500 lin. ft.	.	0.28	.	9	.	34	.	.
65. Fixed Equip. Rpr.	1190.0000	1 per fac.	.	4.60	.	2	.	3	.	.
66. Demand Work	1190.0000	1 per 5 acres	.	1.72	.	1	.	1	.	.
Subtotal C.S. I							.		.	.
CENTRAL SERVICES II										
70. Mow, Rotary 15'	1120.1200	Per turf acre	.	0.26	.	9	.	34	.	.
70. Mow, Triplex 76"	1120.1100	Per turf acre	.	1.15	.	9	.	34	.	.
70. Mow, Ransome 15'	1120.2300	Per turf acre	.	0.26	.	9	.	34	.	.
71.*Aerate,Tractor 6'	1190.0054	Per turf acre	.	0.52	.	**	.	2 2x	.	.
71. Aerate, Hand 2'	1120.1000	10,000 sq.ft.	.	0.72	.	**	.	2	.	.
72.*Fertilize, Power	1190.2200	Per turf acre	.	0.31	.	1 2x	.	1 2x	.	.
72. Fertilize, Hand	1190.0109	Per turf acre	.	0.56	.	1	.	1	.	.
73. Turf, Sweeping	1120.1000	Per turf acre	.	0.90	.	1	.	1	.	.
74.*Tree Spraying	1190.0122	10 trees	.	0.44	.	1 2x	.	**	.	.
75.*Shrub Spraying	1190.0000	40 shrubs	.	0.40	.	1 2x	.	1 2x	.	.
76.*Weed Spraying	1190.0000	10,000 sq.ft.	.	0.46	.	1 2x	.	1 2x	.	.
Subtotal C.S. II							.		.	.
CENTRAL SERVICES III										
81. Irrigation Repair	1120.0000	Per 5 acres	.	1.72	.	1	.	2	.	.
82.*Irrig. Renovation	1120.0000	Per 5 acres	.	16.0	.	1 2x	.	**	.	.
83. Mobile Eq. Repair	1120.0000	3 per 10acres	.	2.30	.	1	.	1	.	.
84. Pool & Fntn Mtc.	1120.0000	1,000 sq. ft.	.	2.76	.	82	.	166	.	.
85. Fountain Cleaning	1120.0000	1,000 sq. ft.	.	1.61	.	82	.	166	.	.
Subtotal C.S. III							.		.	.
TOTAL CENTRAL SERVICES MAINTENANCE HOURS REQUIRED:							.		.	.

Travel Time: Total Frequencies ____ x 0.3 = ____ Travel Hours ÷ 1,852
= Staff Travel Requirement ____.

*Two Man Operation
**No Frequency Required

Actual Capability Hours: 1,852

TOTAL CENTRAL SERVICES STAFF REQUIRED: ____.

Parks Maintenance Management Unit (3/1/86)
5633R/348R

CITY OF SAN JOSE - MEMORANDUM

TO: Gerald A. Silva, City Auditor

FROM: Robert G. Overstreet, Director Parks and Recreation

SUBJECT: City Auditor's Report on the Parks and Recreation Department's Maintenance Activities

DATE: December 4, 1986

APPROVED

DATE

This memorandum represents the Parks and Recreation Department's initial response to the City Auditor's report concerning the department's parks maintenance activities.

The audit findings and recommendations break down into two general categories:

1. The Parks Maintenance Management System, including the evaluation component. (Findings I and II)

2. The managing of the activity associated with the Central Services functions that emanate from the Parks and Recreation Department's main corporation yard. (Finding III)

Parks Maintenance Management System

Background

The following background is provided so the auditor's recommendation and the department response can be more easily understood.

As originally conceived in 1970, the Maintenance Management System was designed to manually utilize the following eight sequential components for maintenance management activities.

1. Inventory
2. Task List
3. Task Description
4. Time Standards
5. Task Frequency
6. Scheduling Tasks
7. Implementation
8. Monitoring/Evaluation
   a. Quantitative (time card information)
   b. Qualitative (facility inspections and evaluations)

The information derived from this system served as a tool to the department in the general areas of budgeting, management, and supervision from 1970 to 1982.

The system, while fully implemented, required two full-time staff positions to maintain and update the system.

Operations and maintenance costs, manpower allocation decisions, and unit performance were also primary products while the system was in full use. A quantitative monitoring/evaluation component was included whereby the recording of time expenditure by category and by individual workers was analyzed to evaluate whether manpower was being utilized in accordance with the published guidelines. Also, it was useful in determining if divergence was occurring between predicted manpower requirements and actual manpower usage, and if so, why.

The system also provided for a qualitative monitoring/evaluation component to be prepared by supervisory and management personnel that compared results with expected results, i.e., healthy turf, or litter-free, glass-free tot lots.

In 1982, a conscious decision was made to eliminate the quantitative monitoring/evaluation component performed by the Maintenance Management Unit. This decision was made on the basis that the quantitative evaluation system was too complex and the cost of monitoring exceeded the benefits derived. Thus task-related time reporting and compilation was dropped and the evaluation system simplified. As a result, field personnel were no longer in the mainstream of the departmental maintenance management system information, and the qualitative monitoring and evaluation component (formalized field inspection documentation) became the primary tool for evaluating results.

This decision resulted in the staffing level of the Maintenance Management Unit being reduced to one Parks Maintenance Coordinator II.

Since that date, the primary use of the system has been as a budgeting and manpower allocation tool.

Auditor's Findings and Recommentations

Finding I -- Deficiencies in the Department's task/frequency analysis process impair management's ability to accurately assess maintenance staffing needs. See Recommendations #1-6 of the City Auditor's report.

Finding II -- Procedures and criteria for facility evaluation need to be clarified. See Recommendations #7-11 of the City Auditor's Report.

Response to Recommendations

The department agrees in concept with Recommendations #1-11. The details related to the methods, costs, and timing of implementation require further review. It is anticipated that such a review can be completed in April for consideration of incremental implementation in the 1987-88 budget.

Parks Central Services

Finding III -- Better utilization of existing information will improve the department's ability to manage Central Services activities and to control equipment usage. See Recommendations #12-16 of the City Auditor's Report.

Response to Recommendations

The department agrees in concept with the Auditor's recommendations. Actions are being taken on Recommendations 12, 15, and 16. It is anticipated these recommendations can be implemented by June, 1987.

Recommendations 13 and 14 will require further review to determine methods, costs, and timing of implementation. We anticipate an assessment being completed by April, 1987, in time for consideration of incremental implementation in the 1987-88 budget.

Other Pertinent Information

In a section of the audit report entitled "Other Pertinent Information", the City Auditor discusses the use of Construction and Conveyance Tax revenues to fund eligible parks operating maintenance costs for a maximum of five years per project, as authorized in the Municipal Code. We agree with the City Auditor that it is important to recognize the temporary nature of this benefit to the General Fund, which must eventually absorb these maintenance and operating costs as the five year eligibility period for each project expires. The City Council discussed the temporary nature of this benefit to the General Fund in 1983 when it approved the report of the "Task Force on Urban Services and the Construction and Conveyance Tax" and expanded the allowable uses of Construction and Conveyance Tax revenues for maintenance operating costs for five years per project. The City Administration restates the five-year funding limitation each year in the introduction to the parks portion of the Five-Year Capital Improvement Program. However, it is also important to recognize the magnitude of the benefit which this mechanism provides to the General Fund. By 1992-93, the Construction and Conveyance Tax Funds will have relieved the General Fund of nearly $1.5 million in operating maintenance costs which the General Fund would have otherwise had to finance.

The original intent of the Construction and Conveyance Taxes was to generate funding for capital acquisition and development. The need for acquisition and development funding has not diminished over the years. The city's current Parks and Recreation Planning Study is expected to demonstrate that the current tax mechanisms are not generating sufficient revenues to keep pace with the city's growth needs and that additional revenue sources must be explored. In addition, the Planning Study is expected to demonstrate a need to review the distribution of Construction and Conveyance Tax revenues between Council districts to determine whether the original distribution formula should be amended in order to provide for better leveraging of resources.

Conclusion

We appreciate the close attention given to this department's maintenance management activities; we will work diligently to improve them.

Robert G. Overstreet, Director
Parks and Recreation Department

RGO:ROR:JM:vw